**Stack Output:**

Enter Size of Stack: 2

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 2

Stack is Empty.

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 1

Enter Value: 10

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 1

Enter Value: 11

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 3

Top: 11

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 1

Stack is Full.

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 2

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 3

Top: 10

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 2

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 2

Stack is Empty.

1. Push

2. Pop

3. Top

0. Exit

Enter Option: 0

**Bubble Sort Output:**

Enter Size of Array: 5

Enter Elements of the array:

3 2 5 1 2

Sorted Array

1 2 2 3 5

**Binary Search:**

Enter Size of Array: 5

Enter Elements of the array:

3 2 4 1 5

Enter Key: 5

Your key found.

**Merge Sort:**

Enter Size of Array: 5

Enter Elements of the array:

3 2 5 1 4

Sorted Array

1 2 3 4 5

**Selection Sort:**

Enter Size of Array: 5

Enter Elements of the array:

2 4 3 1 5

Sorted Array

1 2 3 4 5

**Insertion Sort:**

Enter Size of Array: 5

Enter Elements of the array:

4 3 5 1 2

Sorted Array

1 2 3 4 5